

Listing of Claims:

What is claimed is:

1. (Previously Presented) A method of interworking teleservice between two broadband heterogeneous networks, which have various different address planning and different network structures, each heterogeneous network having at least one telephone call device, and at least one media gateway, the heterogeneous networks being connected by a call control equipment and a media interworking equipment, the call control equipment performing signaling interworking and controlling a call between the heterogeneous networks, the media interworking equipment being used for mapping media ports of the heterogeneous networks and transmitting media streaming under the control of the call control equipment, the method comprising:

receiving a call request coming from a caller party equipment in one heterogeneous network by the call control equipment, the caller party equipment comprising a telephone call device;

determining by the call control equipment whether the call request of the caller party equipment is a call between the heterogeneous networks;

if the call request is a call between the heterogeneous networks, creating a connection between the media interworking equipment and the caller party equipment and a connection between the media interworking equipment and a called party equipment in the other heterogeneous network under the control of the call control equipment, wherein creating the connections comprises:

creating a media port within the caller party equipment;

creating a media port within the called party equipment;

creating, within the media interworking equipment and based on a command from the call control equipment, a first internal media port that corresponds to the caller party equipment and a second internal media port that corresponds to the called party equipment and establishing a mapping between the first and second internal media ports; and

transmitting media streaming by the media interworking equipment based on the mapping between the first and second media ports to realize media interworking.

2. (Canceled).

3. (Previously Presented) The method according to claim 1, wherein, before the step of transmitting media streaming, the method further comprises:

negotiating a media capability with the called party equipment by the caller party equipment;

translating a format of the media streaming by the media interworking equipment if the media capability of the caller party equipment and a media capability of the called party equipment do not match.

4. (Previously Presented) The method according to claim 3, wherein, the step of translating the format of the media streaming comprising:

recovering incoming media streaming into original media streaming; and
re-encoding and compressing the original media streaming according to a desired format of the media streaming.

5. (Previously Presented) The method according to claim 1, wherein, the call control equipment sends and receives control signaling via H.248 or Media Gateway Control Protocol.

6. (Previously Presented) The method according to claim 1, wherein at least two call control equipments are connected between the heterogeneous networks, and each of the at least two call control equipments controls a different party equipment, and wherein the method further comprises:

transmitting the call request by the call control equipment that controls the caller party equipment to the call control equipment that controls the called party equipment; and

designating one of the at least two call control equipments to control the media interworking equipment.

7. (Previously Presented) The method according to claim 6, wherein, the signaling is transmitted between the call control equipments via a Session Initiation Protocol for Telephones or a Bearer Independent Call Control Protocol.

8. (Previously Presented) The method according to claim 1, wherein at least two media interworking equipments are connected between the heterogeneous networks, and each of the at least two media interworking equipments is connected to a different network, and wherein the method further comprises:

establishing a media connection between the media interworking equipment connected to the caller party equipment's network and the media interworking equipment connected to the called party equipment's network.

9. (Previously Presented) The method according to claim 1, wherein one of the heterogeneous networks is a H.323 network which includes a gate keeper and a H.323 gateway; and the connection between the media interworking equipment and a party equipment in the H.323 network is established by the call control equipment and the gate keeper controlling the H.323 gateway.

10. (Previously Presented) The method according to claim 1, wherein one of the heterogeneous networks is a Session Initiation Protocol network which includes a SIP proxy and a SIP user agent; and the connection between the media interworking equipment and a party equipment in the SIP network is established by the call control equipment and the SIP proxy controlling the SIP user agent.

11. (Previously Presented) A system of interworking teleservice between two broadband heterogeneous networks, which have various different address planning and different network structures, each heterogeneous network having at least one telephone call device, and at least one media gateway, the system comprising:

a call control equipment which is connected between the heterogeneous networks and configured to process a call request between the heterogeneous networks and transmit signaling; and

a media interworking equipment which is connected between the heterogeneous networks and configured to establish a mapping between media ports of the heterogeneous networks and transmit media streaming between the heterogeneous networks based on the mapping under the control of the call control equipment; and

wherein the media interworking equipment implements teleservice interworking between the heterogeneous networks by establishing a first internal media port within the media interworking equipment that corresponds to a caller party equipment in one heterogeneous network and a second internal media port within the media interworking equipment that corresponds to a called party equipment in the other heterogeneous network and mapping the first and second media ports under the control of the call control equipment.

12. (Previously Presented) The system according to claim 11, wherein the media interworking equipment comprises:

a protocol module for receiving control data from the call control equipment, creating the media ports, and establishing correspondence relationship of the media ports; and

a media transmitting and mapping unit for transmitting the media streaming that comes into the media interworking equipment according to the established correspondence relationship.

13. (Previously Presented) The system according to claim 12, wherein the media interworking equipment further comprises:

a media translating unit for processing format translation for the media streaming when media capabilities or formats of the caller party equipment and the called party equipment do not match.

14. (Previously Presented) The system according to claim 11, wherein the call control equipment comprises:

a protocol adapter for receiving and sending control data and receiving the call request coming from the caller party equipment;

a call server for controlling the call request between the heterogeneous networks.